CLAIMS

1. A method for stabilizing technical processes, characterized by the following steps:

    a) Recording and selection of data and preparation of data;

    b) GS analysis of target value within the prescribed tolerance range;

    c) Automatic process modeling and sensitivity analysis for determining the most important influencing variables x_i for the selected target variables y_i;

    d) Selection of GS-optimal target variable values in the tolerance band and back calculation to the accompanying input variable values, rated values, all influencing variables via conventional optimization methods;

    e) GS analysis of rated values for the influencing variables calculated in d), and

    f) Repetition of procedural steps d) and e) up to a GS-optimal target variable value from the given tolerance range until all important GS-optimal rated values for the influencing variables and manipulated variables have been found;

    g) Output of GS-optimal manipulated variables to the process.

2. A method for stabilizing technical processes, characterized in that several target variables are simultaneously and coherently optimized according to global scaling (GS) by linking together the selected target variables using any mathematical function desired, and GS-optimizing the resultant power function (G).

3. The method according to claim 2, in which all variables relevant for optimization are optimized relative to flexibility and stability via an analysis based on global scaling methods, wherein a global scaling analysis is performed on data for the relevant parameters and the accompanying target variables.

4. The method according to claim 3, characterized in that the process itself is optimized.

5. The method according to claim 3, characterized in that the products manufactured via a process are optimized.

6. The method according to one of the preceding claims 2 to 5, characterized in that the influencing variables of the process are also subjected to a GS analysis and optimization for the GS-optimization of a target variable.

7. The method according to one of claims 2 to 6, characterized in that processes or products from mechanical engineering or the chemical industry are stabilized or optimized.